

Applicant: Shults, et al. Serial No.: 09/489,588

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**VERSION OF AMENDMENT WITH MARKI** TO SHOW CHANGES MADE

## IN THE CLAIMS

Of original claims 1-27, please cancel claims 11-27.

Please amend original claims 1, 6-10 as follows:

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- (Amended) A biological fluid measuring device, comprising: --1.
- a housing comprising an electronic circuit [means] and at least two electrodes a) operably connected to said electronic circuit [means]; and
- a sensor [means] operably connected to said electrodes of said housing, said b) sensor [means] comprising i) a bioprotective membrane, and ii) an angiogenic layer, said angiogenic layer positioned more distal to said housing than said bioprotective membrane.--
- (Amended) The biological fluid measuring device of Claim 1, further comprising c) a member [means] for securing said device to biological tissue, and securing member [means] associated with said housing .--

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--7. (Amended) The biological fluid measuring device of Claim 6, wherein said securing member [means] comprises poly(ethylene terephthalate).--

- --8. (Amended) The biological fluid measuring device of Claim 1, wherein said sensor [means] further comprises a member [means] for determining the amount of glucose in a biological sample.--
- --9. (Amended) The biological fluid measuring device of Claim 8, wherein said glucose determining member [means] comprises a membrane containing glucose oxidase, said glucose oxidase-containing membrane positioned more proximal to said housing than said bioprotective membrane.--
- --10. (Amended) The biological fluid measuring device of Claim 1, wherein said housing further comprises [means] an apparatus operatively connected to said electronic circuit for transmitting data to a location external to said device --

Please renumber Claims 1-15 filed with the subject continuation application as claims 28-42.

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Please add the following new claims 43-50.

43. An implantable glucose monitoring device, comprising:

a housing adopted for [subcutaneous] implantation into a host; and

a sensor supported by said housing for communication with tissue of said host, said sensor comprising (i) a member for determining the amount of glucose in biological fluid of said host, and (ii) a bioprotective member disposed more distal to said housing than said glucose determining member and including a bioprotective membrane that is substantially impermeable to macrophages and permeable to glucose and oxygen.

- 44. An implantable glucose monitoring device of Claim 43, wherein said bioprotective membrane comprises pores, said pores having diameters ranging from about 0.1 micron to about 1.0 micron.
- 45. An implantable glucose monitoring device of Claim 43, wherein said bioprotective membrane comprises polytetrafluoroethylene.

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- 46. An implantable glucose monitoring device of claim 43, further comprising a member for securing said device to biological tissue of said host, said securing member cooperatively associated with said housing.
- 47. An implantable glucose monitoring device of Claim 43, wherein said securing member comprises poly(ethylene terephthalate).
- 48. An implantable glucose monitoring device of Claim 43, wherein said glucose determining member comprises a membrane containing glucose oxidase, said glucose oxidase-containing membrane positioned more proximal to said housing than said bioprotective member.
- 49. An implantable glucose monitoring device of Claim 43, wherein said device further comprises at least two electrodes supported by said housing and operably connected to said sensor.
- An implantable glucose monitoring device of Claim 49, wherein said device further comprises electronic circuitry operably connected to at least one of said electrodes and adapted for continuous, long-term operation.